

ABSTRACT OF THE DISCLOSURE

A semiconductor device superior in reliability and suitable for microminiaturization is provided. An organic SOG film is formed on a silicon oxide film. Boron ions are implanted into the organic SOG film.

5 By introducing boron ions into the organic SOG film, the organic components in the film are decomposed. Also, the moisture and hydroxyl group included in the film are reduced. After a metal interconnection is embedded in a modified SOG film by the Damascene method, a modified SOG film is formed thereon. Then, contact holes are formed. After a

10 contact hole interconnection is embedded in the contact holes, a modified SOG film and an upper metal interconnection are formed by the Damascene method.

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